



**UNITED STATES DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL WEATHER SERVICE  
Fort Worth, Texas**

**October 2002**

# **SOUTHERN TOPICS**

[www.srh.noaa.gov](http://www.srh.noaa.gov)

*Working Together To Save Lives*

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## **REGIONAL DIRECTOR**

I am pleased to announce a number of Southern Region employees and offices will be receiving the Department of Commerce Bronze Medals. Recipients are:

**Kevin Brown, Mike Coyne, Chris Liscinsky, Mark Rose and Tim Troutman** - as part of a group being recognized for improved software used in the NOAA Weather Radio Program.

**Dennis Cain and Matt Strahan** - as part of a group which developed and implemented the NWS Corporate Web Image pages.

**WFOs Austin/San Antonio, Jackson, Memphis and Birmingham** for services during an outbreak of tornadoes and flooding in November 2001.

**WFO Lake Charles and the Lower Mississippi RFC** for services during the flooding associated with tropical storm Allison in June 2001.

**WFO Norman** for services during a major ice storm in January 2002.

Congratulations to all these medal recipients.



I am also pleased to announce the **Southern Region Isaac Cline Award** winners for 2002. The selection team which involved regional, field and NWSEO representatives, had a difficult task choosing from the numerous excellent nominations. Although these individuals and groups were selected to receive the Southern Region Cline Award, everyone in the region can be proud of the teamwork that has been accomplished during the year. Congratulations to everyone. Names of the winners are included as an attachment this month.

<http://www.srh.noaa.gov/ftpoot/topics/attach/pdf/oct02attach.pdf>

## **CLIMATE, WATER AND WEATHER DIVISION**

### **METEOROLOGICAL SERVICES BRANCH**

**HURRICANE IMPACTS.** Within the past month both tropical storm Isidore and hurricane Lili made landfall on the Louisiana coast - little more than a week apart. All Southern Region offices who were affected provided excellent service before, during and after landfall of both storms. Although Isidore was a strong Category 4 hurricane when it impacted Yucatan, thank goodness it weakened considerably prior to its well-forecast trek northward to the Louisiana coast. Even so, torrential rains as far away as the Florida panhandle accompanied landfall. The rains and flooding were also forecast well and there were no fatalities with the storm. Lili also weakened just before landfall, so her impact was considerably less than what might have been.

All who were involved are to be commended, and particularly those who stepped up to provide assistance when called upon, including forecasters who were TDY'd to other offices. The Regional Operations Center at SRH was manned around the clock and comments such as those below from WFO New Orleans Area MIC Paul Trotter (following Isidore) reflect best how well we can accomplish our important public safety mission when we all work together.

Thanks for the recent and timely support given by the Regional Office to WFO New Orleans/Baton Rouge. Your staffs provided all the necessary resources needed during Isidore. I wish to especially thank Scott Spratt, Paul Witsaman and the ROC personnel. This is a true example of the NWS exceeding its mission, surpassing expectations, and delivering exceptional service.

Scott's [detailed to the WFO from WFO Melbourne] work is worthy of heightened praise. He was a total team member, applied exceptional scientific tenets, and did extremely well with value added product delivery. Paul [from SRH/CWWD, who provided an on-site NWS contact at the state emergency operations center in Baton Rouge] kept abreast of activity and received many favorable accolades from the Louisiana State Office of Emergency Preparedness for his quality partnering. He maintained timely contact and coordination with the office throughout events. The entire ROC unit provided guidance, coaching, and critical aid. All requests from this

office were responded to without exception. Their coordination support anchored local activities.

WFO LIX wanted to make sure that our colleagues are recognized for impeccable work! Again, thanks for the support.

The level of preparedness all along the Gulf Coast could not have been better for both storms striking the same area within a week.

**NWR DEDICATED AT FOUNTAIN HILL, ARKANSAS.** The voice of the National Weather Service is now being heard across southeast Arkansas and portions of northeast Louisiana. On September 12, Arkansas Governor Mike Huckabee and National Weather Service Southern Region Director Bill Proenza were in Crossett, Arkansas to dedicate a new NOAA Weather Radio transmitter located at Fountain Hill.

This new transmitter, operating at 1000 watts and at a frequency of 162.475 MHz, was finally operational after nearly three years of hard work and dedication by the community of Crossett, Arkansas and Ashley County. This transmitter first began broadcasting in early August 2002, and after a 30-day test period is now fully operational. For the first time many residents of southeast Arkansas will be able to hear the Voice of the National Weather Service and get early warnings from the NOAA Weather Radio at Fountain Hill.

**WFO MEMPHIS PROMOTES “EARLY ALERT - SAVES LIVES” POSTER.** NWS warnings and forecasts are broadcast over commercial radio to millions of Americans every day. In a determined effort to strengthen the relationship with such a valuable partner, WFO Memphis makes a special point to visit every radio station in the mid-South annually. This requires tremendous staff dedication to personally visit each of the nearly 150 radio stations scattered across western Tennessee, northern Mississippi, northeast Arkansas, and the Missouri Boot Heel.

This year the staff at WFO Memphis emphasized the importance of NOAA Weather Radio (NWR) and the Emergency Alert System (EAS) in saving lives. Recently, WCM Jim Belles presented Robin Mathis and Donald Tallent of WCPC-AM (Mississippi’s oldest 50,000 watt radio station) in Houston, Mississippi with a colorful “Early Alert - Saves Lives” poster. This poster shows those counties that are alerted by each NOAA Weather Radio transmitter serving the mid-South. Obviously, NWR will increase its value as a vital national warning system as more commercial radio stations use it as their source for EAS alerts.

**WFO ALBUQUERQUE EXCHANGES WARNING BROADCASTS.** A new “cooperator” NWR transmitter site near Durango, Colorado is now in service in cooperation with WFO Grand Junction, Colorado. The Durango transmitter will transmit forecasts and warnings for both San Juan and Rio Arriba counties in the WFO Albuquerque county warning area. In turn, WFO Albuquerque's Farmington transmitter is now set up to broadcast warnings for La Plate County in

Colorado. The combined effort between WFOs Albuquerque and Grand Junction will improve the coverage in the Four Corners area of the southern Rockies.

**MARINE OUTREACH.** WFO Jacksonville staff members Andrew Shashy, Al Sandrik, Matt Zibura, Phil Peterson and Fred Johnson staffed an NWS marine display at the Jacksonville Boat Show in August. The team provided mariners with information on the new 3-meter discus buoy, 50 miles off St. Augustine, and answered many questions on marine forecast products. A few boaters mentioned they need sea surface temperature information for fishing and the new buoy provides that information. Approximately 7300 people attended the show.

**AVIATION OUTREACH.** CWSU Jacksonville MIC Curt Morton and WCM Fred Johnson provided an “NWS Aviation Weather Products and Hazardous Weather Briefing” to the All Pilots Meeting at the Gainesville Regional Airport last month. Thirty-one general aviation pilots attended the meeting sponsored by the fixed base operator, Flightline. The briefing highlighted the NWS aviation home pages for flight planning and Florida’s pulse thunderstorm hazards.

## **SEVERE WEATHER PREPAREDNESS AND OUTREACH**

**Weather Radio Awareness Week a Success.** As a joint effort between WFOs Norman, Tulsa, Amarillo and Shreveport, the first ever Weather Radio Awareness Week was held in Oklahoma September 21-27. The week began with a statewide initiative to program weather radios. NWS personnel joined emergency management officials, storm spotter groups, the American Red Cross, the broadcast and print media and other agencies in a coordinated campaign to help weather radio customers program their receivers. Over 425 people visited the dozen or so locations set up across the state.

**Major Awareness Goal Attained at Southern Region WFO.** A lofty goal of visiting and participating in outreach and preparedness activities in every one of the 42 counties under the WFO Nashville umbrella was attained in the fiscal 2002 year. WFO Nashville MIC Derrell Martin and WCM Jerry Orchanian spearheaded and completed this admirable and successful office campaign to provide their customers and partners an understanding of NWS products and services.

**Disaster Safety Education with FLASH.** WFO Jacksonville WCM Fred Johnson, forecaster Al Sandrik and DAPM Mike McAllister partnered with the Federal Alliance for Safe Homes (FLASH), a non-profit charitable organization, to promote disaster safety education at three outreach events in southeast Georgia and northeast Florida. Nearly 3,000 attendees visited the NWS hazardous weather booth which provided numerous handouts on tornado, severe thunderstorm, hurricane and flash flood safety at the three events.

## **EMERGENCY MANAGEMENT COORDINATION**

**Six New StormReady Sites.** The StormReady program added to the FY02 total in Southern Region during the month of September. WFO Fort Worth recognized three communities, Coppell, Highland Village and Rowlett, and one county, Navarro in north Texas, as StormReady. WFO Tampa Bay recognized Manatee County, while WFO Amarillo recognized Beaver County of Oklahoma as StormReady. A total of 51 new StormReady sites were recognized in the Southern Region during fiscal year 2002.

**Deep South Texas WFO Supports Local Emergency Management.** WFO Brownsville WCM Jesus Haro and Forecaster Mike Castillo represented the NWS as part of the first meeting of the Hidalgo County “Disaster Preparedness Task Force” in deep South Texas. The purpose of the task force, comprising NWS and county emergency management personnel, is to provide county decision makers with practical and fiscal recommendations regarding disaster preparedness.

**Emergency Managers Get a First-Hand Look at Severe Weather Operations.** When severe thunderstorms threatened Oklahoma on September 18, participants and attendees at the Oklahoma Emergency Management Association meeting in Tulsa were obviously concerned. Almost every emergency manager in the state was at the meeting. Outlooks and forecasts from WFOs Norman and Tulsa indicated a threat of damaging winds and hail from thunderstorms expected to roll into the state after dark.

WFO Tulsa MIC Steve Piltz and WCM George Mathews, along with WFO Norman WCM Rick Smith, established a weather briefing room in the hotel to keep emergency managers updated on what was happening using two laptop computers and an LCD projector. As storms continued to develop, a group of emergency managers joined Steve, George and Rick on a trip to the Tulsa WFO, where they set up shop in a corner of the severe weather operations area. The EM’s got a rare first hand look at the inner workings of the warning process while coordinating with their local offices in response to the storms.

**Skywarn Training a Hit in Alabama.** WFO Birmingham WCM Brian Peters continues to receive accolades from attendees for his most recently conducted and successful “Basic” Skywarn Spotter training class at the Coosa Valley Rescue Squad in Sylacauga in east-central Alabama. Attendees were extremely impressed with Brian’s charisma, enthusiasm, knowledge and technological presentation of the “Basic” Skywarn Spotter class.

## **MEDIA/PUBLIC/EXTERNAL CUSTOMER SUPPORT**

**Southern Neighbors Partner with Southern Region WFO.** WFO Brownsville partnered with the Matamoros, Mexico Televisa television affiliate to produce an extensive news feature on how the NWS gathers and analyzes upper air data. The Mexican television affiliate filmed an upper air balloon release and recorded a meteorological narration of the event in Spanish by WFO Brownsville

HMT Alfredo Vega. The news feature highlighted how upper air data help forecasters provide more accurate and timely forecasts, watches and warnings to the entire Rio Grand Valley of Deep South Texas.

**Fellow Federal Agency Gets the Scoop on Hurricanes.** WFO New Orleans Area WCM Frank Revitte provided a comprehensive and informative hurricane preparedness presentation to 55 employees of the Mineral Management Service (MMS), a part of the U.S. Department of Interior. The MMS oversees leasing of federal offshore waters in the Gulf of Mexico to private companies for the extraction of mineral resources such as petroleum and natural gas. Frank impressed the group with animated graphical storm surge simulations, an energetic discussion on the various hurricane impacts and a myriad of historical hurricane facts concerning the Louisiana coast and northern Gulf of Mexico.

### **HYDROLOGIC SERVICES BRANCH**

**PERSONNEL CHANGES IN OUR HYDROLOGY FAMILY.** We have had some personnel changes in our hydrology family during the past few months.

Montra Lockwood is the new service hydrologist at WFO Lake Charles. She earned a BS in meteorology at the University of Oklahoma. She joined the NWS in 1989 at WSO Lake Charles as an intern, where she worked for about a year and a half. She returned to OU to pursue an MS in meteorology. In 1999, she returned to the NWS as a term intern at WFO Jackson. After one year there, she was hired into a permanent position at WFO Lake Charles as an intern. She received the Director's Award for Exemplary Teamwork in 2001. Montra initially plans to work with emergency managers and local officials to improve understanding of the areas most prone to flooding, especially in urban locations.

Jason Elliot is the new hydrology focal point at WFO Huntsville. He received his BS in geography/meteorology in May 1999 from the University of South Alabama. Beginning as a SCEP employee at WFO Mobile in December 1998, Jason was an intern and a journeyman forecaster at WFO Memphis before starting his new position as journeyman forecaster/hydrology focal point at WFO Huntsville in August 2002.

Jason Johnson is the new service hydrologist at WFO San Angelo. Jason received a BS degree in hydrology and water resources from Tarleton State University in August 1991 and an MBA in business administration from Southwest Texas State University in May 1999. Jason has been a hydrologic forecaster at the WGRFC for the past year and a half. Prior to that he was a hydrologist with the Texas Railroad Commission and at an engineering consulting firm.

Please help us welcome Montra Lockwood, Jason Elliot and Jason Johnson to their new positions.

**HYDROLOGY DIRECTIVES UPDATE.** OCWWS HSD has completed their first set of national hydrology policy/procedure directives under the new National Directives System (NDS). The directives are posted on the NDS Web page. There are currently 15 procedure directives and one overarching policy directive included on this Web page. These directives supercede current national WSOM E Chapters. Each new directive contains a section titled “Summary of Revisions” that lets you know which WSOM E Chapter(s)/Operations Manual Letter(s) (OML) have been superceded. The URL for the NDS Web page is: <http://www.nws.noaa.gov/directives>

Once you get to the Web page, click on “10-Operation and Services,” then scroll down until you find “10-9 Hydrologic Services Program.” Four other national hydrology directives are in the review process and should be posted on the NDS Web page soon.

**TWMC MEETING.** The Texas Water Monitoring Congress was held last month in Austin. HSB chief Ben Weiger, WGRFC senior hydrologic forecaster Frank Bell, WFO Fort Worth senior service hydrologist Bob Carle, and WFO Houston/Galveston senior service hydrologist Dave Schwartz represented the NWS at the Congress. Ben and Frank gave presentations during the GIS focus group sessions. Ben gave a presentation about the NWS Advanced Hydrologic Prediction Services program and Frank Bell gave a presentation about the various precipitation information graphics available on the WGRFC home page.

**VTEC.** The NWS plans to integrate Valid Time Event Code (VTEC) in public service program text-based products in association with AWIPS Operation Build 2 scheduled the fall of FY03. VTEC will provide weather providers and customers with weather/flood event information in code form. VTEC will be an extra line of code located beneath the UGC line. After implementation of VTEC, all public service program products, including public hydrologic service program products issued by the WFOs, will contain this additional line of code. NWSH has a Web site that contains information about this new code, including the products that will include this code. It is currently undergoing some changes. The URL is: <http://www.nws.noaa.gov/om/vtec/vtec.pdf>

**WHFS BETA TEST SITE.** In coordination with the regions, NWSH has identified one WFO in each region to act as a beta test site for future releases of WHFS software. WFO Tallahassee will be the first WFO in our region to act in this capacity. We plan to rotate this activity to other WFOs in the future.

## **SCIENTIFIC SERVICES DIVISION**

**UPCOMING NCEP RUC CHANGES.** Some bug fix changes have been made to the NCEP version of the Rapid Update Cycle (RUC) model.

Changes to the post-processing programs were implemented on September 24. These changes were primarily for the BUFR output files, including rotating winds to earth-relative (10m, profiler, storm-relative), setting one-hour precipitation properly (instead of three-hour precipitation on every

third hour), and using 2 m temperature, pressure, and elevation from the RUC “topomini” file (see <http://ruc.fsl.noaa.gov/forum/eval20/?read=1053>).

The ceiling (cloud base) calculation now properly uses the snow mixing ratio, as well as those of cloud water ice. Also, the precipitation type now properly includes sub-grid-scale precipitation (it did not before).

Change to the model were made on October 1. There were two set of changes. The first was made to avoid too-cold 2 m temperature forecasts over thin snow cover at night. Since the RUC20 with the new two layer snow model and frozen soil processes was implemented last April after most of the “snow season” was over, most users have never seen this problem and, thanks to this change, never will. The other change corrected a bug that resulted in too much short wave radiative heating in the atmosphere. There was no bug in the short wave radiation reaching the surface, so the effects of this fix are relatively small, but will result in a slight cooling effect (less than 0.5 deg C) primarily in daytime.

**THE NCEP QUARTERLY BACKUP TEST.** The National Centers for Environmental Prediction (NCEP) will perform a quarterly backup exercise on October 17 during the 1200 UTC model cycle (1200-1800 UTC). If weather conditions preclude performing this exercise it will be rescheduled for the 1200 UTC model cycle on October 24. Further information on the type of products available from the backup processing and their approximate delivery times can be found at: [http://www.ncep.noaa.gov/NCO/PMB/nwprod/osobackup/ncep\\_backup.html](http://www.ncep.noaa.gov/NCO/PMB/nwprod/osobackup/ncep_backup.html)

Example data sets from our backup partners (AFWA, FNMOC, and NOAA/FSL) can be found at: [ftp://ftpprd.ncep.noaa.gov/pub/data/nccf\\_backup/](ftp://ftpprd.ncep.noaa.gov/pub/data/nccf_backup/)

As always, the NCEP appreciates your patience during these exercises which are necessary to assure the continued flow of model guidance in the event of an outage at their super computer facility.

**SOUTHERN REGION ArcIMS WORKSHOP.** On September 12-13, the SR IFPS Team sponsored an ArcIMS Workshop here in Fort Worth. The workshop facilitator, Jack Settelaar, (SSD) gathered a number of participants from across the region who have been or want to be active in pursuing the use of Internet mapping services (IMs) to serve hydrometeorological data to internal/external users. Current efforts across the SR and the NWSH were reviewed. The discussion was focused on assessing the potential of ArcIMS or other IMs to provide interactive access to our data. ArcIMS, in particular, would share the data in a geographic information systems (GIS) format, which is known to be widely used by a number of customers and partners. Special thanks to all workshop attendees for making the workshop a success on such short notice, and to Leslie Carnahan, SSD, for ensuring hotel accommodations and handling many of the meeting logistics.



**NDFD IWT MEETING.** The National Digital Forecast Database (NDFD) Integrated Work Team (IWT) met last month at NWSH. The NDFD IWT was formed to establish and oversee a project to develop a national digital database and test derivative products from it, and to recommend the operational procedures and policies for creating, coordinating, managing, and disseminating the data and products. Representing the Southern Region at this meeting were Jack Settelmaier, SSD, and WFO Norman MIC Mike Foster. The purpose of this meeting was to assess the success of the NDFD prototype, which officially concluded the end of August, and involved four participating SR offices: Norman, Tulsa, Morristown, and Atlanta. Numerous issues that were raised during the prototype were discussed. A list of findings, recommendations, actions was the result of this meeting, and will be shared with all interested parties including Greg Mandt, Director of OCWWS and Jack Hayes, Director OS&T. In addition to healthy discussion, possible courses of action were laid out for the expansion of the prototype toward an eventual NDFD Initial Operating Capability (IOC) in late FY03.

**CAMEO TRAINING OFFERED AT WFO JACKSONVILLE.** The week of September 16, Computer-Aided Management of Emergency Operations (CAMEO) training was made available to a number of emergency first responders, as well as to several forecasters from WFO Jacksonville. CAMEO is software that contains an extensive database of chemicals with information specific to each that aids emergency personnel in dealing with unplanned release. CAMEO works in tandem with two other software programs: MARPLOT is a geographic mapping program, used to geographically display data, à la geographic information systems (GIS), which are widely used by the emergency response community; ALOHA is an atmospheric dispersion model used to evaluate the dispersion of hazardous materials. For more information on CAMEO, MARPLOT, and ALOHA, see: <http://www.epa.gov/ceppo/cameo/>

This particular offering of CAMEO training was set up under the auspices of NOAA's Coastal Storms Initiative (CSI). An in-depth two and a half day training session was held at the Duval County EOC and was delivered by Mark Miller of NOAA's Office of Response and Restoration (ORR). The training gave an introduction of the software, including its need for weather input, to all attendees. In addition to bringing together emergency first responders and NWS employees for CAMEO training, the training provided an opportunity for both to discuss and better understand each others' role in supporting emergency response, which may or may not be initiated by a coastal storm.

To build upon the training delivered by NOAA's ORR as part of the CSI, all first responders were invited to tour WFO Jacksonville on September 20. WFO Jacksonville SOO Pat Welsh arranged for the tour. Later that morning, Mark Miller offered a more focused two-hr training session on CAMEO, MARPLOT, and ALOHA aimed primarily at WFO forecasters. In attendance were several WFO Jacksonville forecasters, as well as warning coordination meteorologists (WCMs) from both WFO Melbourne and WFO Tallahassee. During this focused training, Mark emphasized the sensitivities of the suite of programs to weather input and covered in more detail the kind of weather information first responders need from WFOs in support of their response operations. Discussion ensued on the strengths and weaknesses of the ALOHA modeling program, the need for more WFO

forecasters to become familiar with these programs to enhance their support, as well as what the future role of WFOs will be in this area of emergency support.

**TRAINING FOR FDP.** A new policy statement, “National Weather Service Instruction 20-103: *Forecaster Development Program Training*,” has been posted to the NWS Directives Web site. This is a one-page overview which provides the context for training associated with the FDP, along with links to resources associated with the training. Instruction 20-103 in the new Directives system replaces WSOM OML 5-91 on the same subject.

**MID-SOUTH SCIENCE WORKSHOP.** WFO Memphis hosted a two-day Mid-South Science Workshop in September to provide an opportunity for area meteorologists to share their knowledge and operational experience. Meteorologists from WFOs Jackson, Birmingham, Nashville, Little Rock and Memphis attended, along with WFO Paducah. Other participants included Pete Manousos, the SOO from NCEP’s Hydrometeorological Prediction Center, Bernard Meisner from SSD, and meteorologists from the four Memphis and one Jackson, Tennessee, network television stations. The workshop began with a presentation on isentropic analysis by Prof. James Moore from St. Louis University. Pat Spoden from WFO Paducah conducted an interactive session on identification of cool season tornadoes. Pete Manousos provided an in-depth description of ensemble forecasting, as well as an overview of the National Digital Forecast Database. Other speakers included Scott McNeil and Matt Zika from WFO Memphis, Dave Biggar, Alan Gerard and Chad Entremont from WFO Jackson, and Kevin Pence from WFO Birmingham. Several of the presentations are available on the WFO Memphis Web site. Workshop participants joined with the local Memphis AMS chapter for an evening dinner meeting, during which FedEx meteorologist Mike Watts delighted the crowd with pictures from 28 years of storm chasing.

**TRAINING AT WFO HUNTSVILLE.** As part of the initial spin-up training for the forecast staff at WFO Huntsville it was arranged for the Warning Decision Training Branch to conduct a three-day Warning Decision Making Workshop last month at the WFO. In addition to providing the training for the entire forecast staff at Huntsville, it was possible to include visiting forecasters from WFOs Nashville, Morristown, Atlanta, Birmingham and Jackson. The workshop was a slightly shortened version of the WDM which is conducted several times each year at COMET, but it included examination of a few localized cases contributed by the visiting participants. Bernard Meisner (SSD) helped conduct the workshop by accompanying and setting up the five SRH Weather Event Simulator workstations which were used for the training. Conducting the WDM at a WFO, where the entire staff of forecasters could be trained at the same time, was a first, and could not have been accomplished without the generous response of the WDTB staff to our request, and the availability of the region’s workstations. One SRH WES will remain at the WFO temporarily to allow the forecasters to gain additional training with a dual-WES setup which better emulates AWIPS operations. (SSD would be happy to work with other offices to provide a “loaner” WES workstation for the same purpose.)

Also in September, and as part of their spin-up training activities, the forecast staff of WFO Huntsville participated in a series of sessions with the primary goal of fostering communication and team-building. The program began with a three-day workshop entitled "FORTE - Forging our Re-Commitment To Excellence." This session, modeled after the five-day BLAST workshop, focused on a variety of personal leadership and customer service themes critical to the success of a local forecast office. This workshop was followed by a set of seminars on diversity, emotional intelligence, and Myers-Briggs personality typing, conducted by Crystal Williams of ITA, Inc., and Dr. Norma Barr. A highlight of the training was an extended group discussion on the staff's Myers-Briggs test results, and techniques for ensuring effective communication between individuals with different personality types.

**GOES CHANGE PLANNED.** Beginning next January GOES-12, which was successfully launched into geostationary orbit in July 2001, will be taken out of storage and begin a move from 110W longitude to 75W, where it will replace GOES-8 as the operational GOES-East satellite. The replacement is necessitated by depletion of station-keeping fuel on the older satellite. Additional details about the change-over are contained in a technical attachment to this month's *Topics*.

<http://www.srh.noaa.gov/ftpoot/topics/attach/pdf/ssd02-30.pdf>

**OBTAINING ARCHIVED WSR-88D DATA ONLINE.** Archived binary WSR-88D Level II and Level III data may now be ordered and received electronically by entitled users (those at .gov Internet domains). It is no longer necessary to contact SSD to order these data. NWS personnel can request the data by pointing their Web browser at: <http://has.ncdc.noaa.gov> and clicking on the type of data (Level II or Level III) desired. After completing an electronic request form, the user will be notified via e-mail when the data are available for downloading via File Transfer Protocol (FTP) from the NCDC server.

Because the files are very large it can take as long as six or more hours to download one day's Level II data via the our regional Frame Relay Network. NWS personnel are asked not to download these data on active weather days, which would impede everyone's access to the Internet.

Note that these raw data are not color images of radar products, nor are they compatible with the Weather Event Simulators. Rather, the Level II data must be processed and displayed using either the WATADS (WSR-88D Algorithm Testing and Display System) software on the HP-UX SACs (Science Applications Computers) or the Interactive Radar Analysis System (IRAS) software which is available on the NCDC Web site at: <http://lwf.ncdc.noaa.gov/oa/radar/iras.html>. At this time the NCDC does not distribute any software to display the WSR-88D Level III data.

## **SYSTEMS OPERATIONS DIVISION**

### **SYSTEMS INTEGRATION BRANCH**

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**IT.** The site security plan has been written and established with the new WFO in Huntsville. The document was forwarded to the WFO for the MIC's signature, and was approved by the Regional Director.

On September 18 we discovered a problem with one of the hard drives in the disc array on the Southern Region primary messaging server. Mail operations were slightly degraded due to a bad drive in the Raid 5 disc configuration. After talking with Micron and loading a software package to monitor and manipulate the Raid Array, we found that the disc had sensed a soft error and put itself off-line. The logs showed no hard errors, so we did a rebuild of the disc which took about four hours. After setting the disc back online, we had recovered the drive and operations were restored to full operation. During this time the e-mail system was not down but was slower than normal to respond to requests.

After working with NWS Headquarters and SUN Computer systems on an upgrade to our e-mail servers, we elected to go with the SunFire V480 server. This was due to our current needs and possible upgrades in the future. These new systems should meet our needs for the next four to five years. We had sent the specifications to get quotes on the new SUN servers (Primary Messaging, Backup Messaging, and Primary Directory Servers) to three vendors. The orders were placed with GTSI for the equipment and should arrive in late October. We will keep you posted on our progress to switch over to the new systems.

Several problems were reported this past month with Corp of Engineers (COE) offices connecting to our FTP servers. The problem was eventually resolved by working with the COE IT division. They had implemented some changes to their firewalls, and the solution was to open a return path for the ACK packet request from our inside FTP servers. Any time you have problems with the FTP servers, please contact Gary Petroski or Don Pham at SRH/SOD.

**UPPER AIR.** Charlie Lake (SRH/SOD) performed a survey of the comparative stand and upper air system at WFO Norman. He was able to identify the comparative stand to be 5.8 degrees out of tolerance in azimuth and the tracking system was 1 degree out. The new angles have been noted by office staff.

The pylon shortage created additional system downtime for Shreveport and Norman this past month. There was a two-day data loss for WFO Norman and a six-day loss for WFO Shreveport, while waiting for pylons.

**NWR.** The first Southern Region 1000 watt Armstrong transmitter was installed at East Point, Florida this month. This new transmitter replaces an archaic EnergyOnix transmitter, and has been placed in new cooperator facilities. Many thanks go out to the cooperator, Dick Plessinger, for his generous contributions and invite for NWS to utilize his facilities. This complete package will provide excellent NWR service for the Tallahassee office and Franklin County.

**AWIPS.** Scheduling and installation of the Linux Communications Processors (CP) has begun. The purpose of the new Linux CP is to increase processing speed and power and to increase data storage capacity. The new Linux CP will provide an order of magnitude increase over the old hardware in these areas. All hardware has been shipped and installation must occur before upgrading to AWIPS Build 5.2.2. ESAs should schedule their office installation date with the regional AWIPS program manager.

SRH Electronics Program Manager Steven Baker, and AWIPS program manager Eric Howieson installed AWIPS Build 5.2.2 beta software on the SRH system. This new build is expected to fix approximately 11 pages of discrepancies and identify numerous workarounds for future repairs. The build took about six hours with only minor mishaps. All recommendations have been noted and were submitted to the AWIPS Program Office during the Build 5.2.2 conference calls. Though not performed at SRH, this build is accompanied with a new tool called ICAT. This tool will be utilized for preserving and restoring the site's custom localization during upgrades. Some of the highlights of the new build include:

- Units Conversion application within D2D
- Sunrise/Sunset calculator within D2D
- New LSR application
- WWA runs under Linux
- Automatic Record Event Report (RER) generation
- Several fixes to AvnFPS, SCAN, and FFMP
- New functionality for RFC applications including OFS, IFP, and ESPADP

**TELECOMMUNICATIONS.** Communications services at WFO Huntsville have progressed fairly well. All of the administrative and office telephone lines have been installed and are operational; the Norstar telephone system with voice mail has been installed and is operational, pending minor programming by the office; the 800 numbers which were ordered are currently operational; the office cell phones as well as program specific cell phones have been delivered and are operational, including the emergency cell phone; and the Polycom conference phone has been delivered and is operational. The installation of the Frame Relay/AWIPS was also completed and tested last month. The circuits for the four NWR transmitters for the Huntsville office will be ordered this month to preclude any delays in the installation, considering the holiday season approaching. We will monitor the installed telecommunications services for this office in the coming weeks to insure the quality of the services and to correct any problems immediately.

The NWR circuits for Uvalde, Texas, and Booneville, Mississippi, were tested and accepted this month. The NWR circuit for Eastpoint, Florida was successfully moved to the new transmitter location. The NWR circuit for the Seminole, Texas transmitter has been installed. Also, each site mentioned has a ROAMS line installed or ordered with each circuit. The cell phone service for the New Mexico remote transmitter sites has been set up and will be tested soon by RMS for the area, Phil Shideler.

We identified 73 analog circuits (72 NWR and 1 Hydro) requiring a new circuit ID as a result of the errors made by MCI WorldCom in the order process. The new circuit IDs have been distributed to the field offices.

Credits from MCI WorldCom are being posted to NWS accounts for over-billing charges. Also, the year-end credits are being issued per the FTS2001 contract requirements. Also, credit for the erroneous billing of the analog voice-grade circuits was posted last month.

NWSH requested and was provided information on SR site locations which have hardware subject to the National Telecommunications Information Agency (NTIA) mandated narrowband requirement. The hardware includes NWR UHF links and Hydro equipment operating in the M162-M174 frequency range. Each office responsible for these locations was contacted and provided input to complete the survey.

Looking forward, we are preparing a review of our cell phone and pager inventories in an effort to better serve and support our field offices.

### **OBSERVATIONS AND FACILITIES BRANCH**

**INTERACTIVE VOICE ROSA.** A team from SRH evaluated proposals for the Interactive Voice Remote Observation System Automation (ROSA) system to replace the PC-ROSA system currently in use. The team recommended that MASC award the contract to Franks Solutions, Inc. to develop this new data ingest system.

The new interactive voice ROSA will use voice technology to query the volunteer observer for daily observation data. This system will be very similar to systems used at banks where a voice asks for specific information and uses the key pad on the telephone to respond. The system will also ask the observer to verify the entered values to improve data quality.

Once this system is available for use by the volunteer observers it is expected that the quality and quantity of near real-time data will increase dramatically. Testing of the new system should begin by the end of this year.

**KEY WEST WFO DESIGN STATUS.** The WFO Key West office design has evolved beyond the 15% stage this past May with the 35% design review now scheduled for October 23 at the office of architect Guidry, Beazley & Associates in Lafayette, Louisiana. The total cost has risen approximately 9.5% even though some parts of the overall design have been scaled back, partly due to an error in the contractor's lower May estimate of \$2,398,990.

**KEY WEST UPPER AIR SURVEY.** Measurements for upper air transmitter limiting angles and balloon launch flight obstructions were taken at three locations at the new property in downtown Key West at White and United streets. The conclusions from these measurements indicate the transmitter antenna base should be mounted at an elevation of 40 feet, primarily to look over the adjacent school maintenance structure to the east of our property, and the balloon launch platform height would be optimized at 42 feet above ground level (AGL). Since this survey the architects have proposed a cost-saving measure to lower the berm foundation two feet which should still allow a successful launch at 40 feet AGL with winds at or below 40 knots. The use of GPS sondes at Key West will further reduce the concern of limiting angles caused by nearby obstructions.

**KEY WEST SECURITY PLAN COMPLETED.** Wendy Monroe of the MASC Security Office completed a new security plan for WFO Key West based on facility drawings and conversations with NWS personnel in SR and NWSH. As other NWS facilities, Key West is classified as a Department of Justice Class II facility requiring lighting with emergency backup, receiving and shipping procedures, current life safety standards, high security locks, visitor control and screening procedures, emergency power to critical systems, occupant emergency plans and training, law enforcement liaisons, and background checks for service contract personnel. In addition to the above, NOAA has additional access control and surveillance requirements that were also part of the security plan. A site visit by Wendy will be made and may result in further security recommendations.

**NWS NATIONAL NOISE SURVEY, PHASE II.** A representative from the Dallas office of the Public Health Service along with SRH environmental and safety program manager Terry Brisbin visited WFO Albuquerque RDA and ASOS facilities to place noise dosimeters to determine employee's occupational noise exposures. Two additional points will be measured when Albuquerque ETs perform maintenance on the WSR-88D antenna and the ASOS located near the Albuquerque airport runway. A similar study at Dallas-Fort Worth NWS facilities found no excessive noise exposures requiring the implementation of an OSHA Hearing Conservation Program. One difference between these two sites is the louder military aircraft at the Albuquerque airport.

**RADAR DATA ACQUISITION COOLING UNIT REPLACEMENTS.** Six WFO locations have had or are in the process of having their cooling units replaced, as well as ducting modifications approved by the Radar Operations Center in some locations. The six sites are Amarillo, Lubbock, Brownsville, Miami, Melbourne and Huntsville/Hytop (HTX). In addition, the HTX site will be receiving replacement condensers for the equipment room Liebert cooling units.

**EPA SPILL PLANS IN THE WORKS.** In a nationwide contract managed through WASC, employees of TetraTech Corporation will be visiting 12 SR WFOs for either new or updated spill plans. Spill Prevention Control and Countermeasures (SPCC) plans are specified by EPA and are designed to prevent and/or minimize the impacts of any fuel spill from reaching fresh or salt water habitats. The sites are Tulsa, Norman, Melbourne, Mobile, San Juan, San Angelo, Shreveport, Amarillo, Lubbock, Austin/San Antonio, Albuquerque, and Nashville. Each new constructed WFO was provided with an SPCC plan but leased sites were not. EPA regulations require these plans to be updated every five years.

**CPR TRAINING.** Twenty SRH employees attended two CPR training sessions in early September, and Tom Kircher at WFO Fort Worth arranged for a larger number of both WFO/RFC and SRH employees to take the training at the Fort Worth office.

**HOUSTON/GALVESTON PROJECT.** A meeting will be held in October to plan for a new design layout for the Galveston County Emergency Management and Communication Center (EMCC). For the last four months Galveston County has been in the process of acquiring property adjacent to the existing Office of Emergency Management building. Plans to award a construction contract for the center are now expected by late February or early March 2003. The new facility is expected to open in May 2004. The county would be solely responsible for all the construction costs associated with the new EMCC.

**FACILITIES REVIEW OF MODIFICATION NOTE 67.** Modification Note 67 involves connecting the telecommunications link at all WSR-88D sites to the Transition Power Maintenance System (TPMS). After receiving a copy of Modification Note 67, SRH Facilities reported to the Office of Operational Systems that a serious and unsafe electrical system condition would be created if installed as specified. The modification procedure outlined to accomplish this task does not comply with the recommendations set forth in Article 408 of the National Electric Code (NEC), IEEE Standard 1100-1999, IEEE Standard 141-1993 and IEEE 446-1987. The current requirement poses a danger to equipment and personnel by installing power from two different sources into one raceway, wireway and panelboard.

Both the NEC and IEEE recommend wiring from different sources be kept entirely independent of all other wiring and equipment and shall not enter the same raceway, cable, box, or cabinet with other wiring. The TPMS is fed by both commercial and UPS power sources. The circuit which will supply power to the telecommunications link must be installed in a separate conduit from the non-UPS supplied panelboard. This separation will satisfy the safety concerns, meet the requirements of the codes and standards, and provide a greater degree of power quality and reliability to the critical systems of the WSR-88D radar.

The nature of NWS computer-based equipment combined with our life saving mission requires all operationally critical facility systems, especially the electrical distribution system, be maintained to the highest standards similar to hospitals and other emergency management facilities.



**ASOS AUGMENTATION/BACKUP DUTY RESPONSIBILITY TRANSFER.** As of the last day of September, two sites in Southern Region (Key West and Amarillo) were ready to transfer their ASOS augmentation/backup responsibilities to the FAA on October 1, as per the national agreement between NWS and FAA. The remaining four sites (Lake Charles, Brownsville, Midland, and San Angelo) still are waiting for the FAA to install the needed phone circuit which will interface the ASOS with the FAA ASOS/AWOS Data Acquisition System which is required for the automation of thunderstorm and lightning reporting from these sites. It is anticipated that a delay of approximately two weeks will take place at these sites before the transfer is made. Details will be worked out locally and with SRH. All necessary surface observer certification and training is in place for the transfer.

**REAL-TIME ARCHIVAL OF NEXRAD LEVEL-II DATA USING THE INTERNET.** As part of the NASA Tropical Rainfall Measuring and Monitoring Project, SR worked with NASA to install special Local Data Manager (LDM) computers at WFOs in Miami, Key West, Tampa and Melbourne. The LDM is used to route NEXRAD base data in real-time from the NEXRAD ORPG Base Data Distribution System, through NCDC to NASA via the Internet. Archival reliability has been in the 95% plus range at NCDC as compared to the usual 70% range using the jukeboxes. In addition, the reliability has enabled the local WFOs to suspend the use of the jukeboxes for Level-II archival until further notice. These interfaces will be allowed to stay in place even after the implementation of the ORPG to AWIPS LAN to LAN interface. This means real-time NEXRAD base data made is available to the NWS, NCDC, NASA and to universities, as well as private interests using the Internet, at no additional cost to the NWS. WFO Melbourne hopes to ingest these data into a local numerical weather model in support of their forecasts and warnings, with special emphasis on aviation forecasts.

**LEASE FOR MIAMI WSR-88D.** The existing land use agreement between the SRH and the U.S. Army for the site which houses the Miami WSR-88D expires on December 31, 2002, because the Army is abandoning the property. SRH is working with MASC to secure ownership from the GSA at no cost for the ten acre tract.

**KEESLER AFB WSR-88D RELOCATION.** The National Weather Service Southern Region will break ground for a new WSR-88D Doppler radar site in Brandon, Mississippi on October 28. Transferred from Keesler AFB, the new radar will replace the existing radar at Jackson International Airport. The new location will enable WFO Jackson to provide enhanced low-level severe weather detection for the citizens of Mississippi. Special guests for the groundbreaking include Third District Representative Charles "Chip" Pickering (R-Laurel), NWS Deputy Director John Jones, NWS Southern Region Chief Program Officer Mac McLaughlin, and the director of Air Force Weather, Brig. Gen. David L. Johnson.

**ASOS SENSOR RELOCATIONS.** The ASOS Combined Sensor Group (CSG) was relocated in College Station, Texas in late September. An airport procured contractor will relocate the CSG in Tallahassee in October. All necessary FAA approval and configuration management approval has been received for the Tallahassee move.

**WFO HUNTSVILLE RADAR COVERAGE.** Narrowband communication lines have been installed at both WFO Birmingham and at the Columbus, Mississippi WSR-88D RDA shelter. These lines will provide WSR-88D data to the new WFO in Huntsville. The wideband T-1 line interfacing the HyTop WSR-88D and WFO Huntsville will be installed in November, prior to the January 2003 operational opening of WFO Huntsville. Coincident with this, SRH is coordinating with the ROC on the needed installation of an ORPG with Build 2.0 at WFO Huntsville in mid-December.

**WEST MEMPHIS, ARKANSAS AIRPORT ASOS INSTALLATION.** In response to a new FAA requirement, SRH is working with NWSH, the FAA Southwest Region, and WFO Memphis to site, install and commission a new FAA sponsored ASOS in West Memphis. WFO Memphis would be responsible for site maintenance. The location of the Combined Sensor Group and the Acquisition Control Unit have already been determined and the required airspace clearance forms and leases are pending with the FAA. A preconstruction meeting was held at the site in late September with the contractor to arrange all needed site preparation, trenching, cabling and foundation work. It is anticipated that the installation and NWS acceptance will be done by the end of this month, allowing the site to be commissioned in December 2002.

**ASOS PROCESSOR UPGRADE AND PLANNED PRODUCT IMPROVEMENT.** Several SRH sites continue to participate in the Operational Test and Evaluation (OT&E) of the new ASOS processor upgrade. After a brief hiatus due to persistent problems with lockups and warm starts, the new Watchdog Timer Software (Version 2.6A-5) has been installed at four sites in Southern Region (Austin/Camp Mabry, Clinton, Oklahoma, Mobile and Memphis). Lockup problems at both Mobile and Clinton forced the removal of this software and reinstallation of the old software. The reliability of the software at sites other than ASOS single cabinet sites has been unacceptable, placing a burden on the ET staffs at the OT&E sites.

**MAINTENANCE OF THE WSR-88D IN PUERTO RICO.** In response to a request from SRH, and with FAA approval, the Radar Operations Center (ROC) sent a team of technicians to assist the local FAA technicians to ensure that both microwave communications channels are operational between the remote WSR-88D location in Cayey and the WFO located in San Juan. This has been problematic in the past.

SRH is working with WFO San Juan and the local FAA Airways facilities technicians as well as the FAA Southern Region and the ROC on the implementation of a new Local Operational Agreement for maintenance and notification responsibilities for the FAA owned and maintained WSR-88D.

## **ADMINISTRATIVE MANAGEMENT DIVISION**

### **DIVERSITY/EEO AND COMMUNITY OUTREACH ACTIVITIES**

**WFO BROWNSVILLE.** DAPM Jim Campbell was the guest speaker at a luncheon hosted by the Historic Club of Brownsville. He showed a presentation on hurricanes and discussed past seasons as well as the ongoing season. Emphasis was placed on hurricane hazards and safety planning. About 30 people were in attendance.

Jim was also invited to speak to students and faculty at the Science and Health Department of the University of Texas at Brownsville. He briefed the students on this year's hurricane season and discussed hurricane hazards and safety planning. After the presentation he hosted a question and answer session and discussed careers in meteorology, and the WFO's role in the warning process and the partnership with the local news media.

WCM Jesus Haro and SOO Shawn Bennett participated in numerous live and taped Spanish television interviews for the Rio Grande Valley Univision affiliate to advise local residents about the expected and possible impacts of former hurricane Isadore. The WFO continues to have a great relationship with this news source which is the most-watched in the Rio Grande Valley.

**WFO SAN ANGELO.** The WFO San Angelo outreach team and ESA Paul Burke prepared and installed a very nice display at the Annual Abilene Fair and Rodeo, while others staffed the booth. They distributed magnets, brochures, and visited with many customers from west central Texas, and even neighboring NWS offices. The booth was staffed from September 6-14. Three local businesses donated weather radios which were given away as grand prizes. Representatives from the Red Cross and SKYWARN also shared the booth with the staff showing the importance of the partnership.

WCM Hector Guerrero gave a presentation on NOAA Weather Radio to members of the Local Emergency Planning Committee (LEPC) of San Angelo. He discussed the difference between SAME and Tone Alert. He also encouraged the LEPC to find ways to acquire weather radios for Day Cares and Nursing Homes. The group was very receptive. In fact, a surgeon from Shannon Hospital volunteered to find funds to purchase weather radios.

**WFO SAN JUAN.** On September 10, MIC Israel Matos conducted a hurricane preparedness presentation for 120 4-H Club Agricultural and Farm Services students at the Angel Ortiz School in Barranquitas.

On September 14, WCM Rafael Mojica conducted a three-hour weather merit badge training session for 15 Boys Scouts from San Juan Troop 42. The scouts were provided with a weather presentation which covered severe weather, tropical cyclones, and a series of locally produced videos. During their visit, Tropical Depression 10 was approaching Puerto Rico, and we were able to demonstrate AWIPS and 88D.

Professor Marla Perez from the University of Puerto Rico, Mayaguez Campus Sociology Department, visited and toured WFO San Juan with one of her graduate students. During her visit she interviewed WCM Rafael Mojica on the role of the Puerto Rican media during weather related disasters. This interview was part of a behavioral study which involves all of the Puerto Rican media, and the results are planned for publication by early next year.

**WFO SHREVEPORT.** DAPM Marion Kuykendall attended an annual appreciation luncheon hosted by Channel 5 KALB TV of Alexandria, Louisiana, for storm spotters and cooperative observers. Marion was also interviewed by the local TV station on the importance of storm spotters and cooperative observers to the NWS. Tom Kavecka, the TV weatherman, gave out a few length of service awards to his weather watchers. Also in attendance was WCM Roger Erickson from Lake Charles.

HMT Christian Stapleton gave a talk at University Elementary School in Shreveport. Christian discussed safety rules, NWS operations, and had a question and answer session on hurricanes.

<b>SOUTHERN REGION WORKFORCE TRANSACTIONS</b> <b><u>September 1-30, 2002</u></b>			
<b><u>Southern Region Losses</u></b>			
<u>Name</u>	<u>From (Office)</u>	<u>Action/Transfer</u>	<u>From Title/Grade</u>
Richard Hitchens	WFO HGX	Transfer to NWSH	Senior Forecaster, GS-13
Greg Chatelain	WFO LIX	Retirement	Facilities Tech, GS-11
Lawrence Blanchard	WFO SJT	Retirement	HMT, GS-11
Thomas Fountain	WFO HGX	Retirement	HMT, GS-11

<b><u>Southern Region Gains</u></b>			
<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Ryan Knutsvig	WFO BRO	New Hire	Forecaster, GS-9
Robert Handel	WFO MFL	Transfer from ER	Forecaster, GS-7
Daniel N. Valle	WFO MEG	Transfer from CR	Forecaster, GS-7
Anthony B. Schott	WFO MRX	New Hire	Forecaster, GS-7

<b><u>Within Region Transfers/Actions</u></b>			
<u>Name</u>	<u>To (Office)</u>	<u>Action/Transfer</u>	<u>To Title/Grade</u>
Michael Edmonston	WFO JAN	Promotion from TAE	Senior Forecaster, GS-13
Clay Anderson	WFO EWX	Reassignment from ABQ	Forecaster, GS-12
Kati Sommer	WFO MEG	Promotion from EYW	Forecaster, GS-9
Jason Johnson	WFO SJT	Promotion from FWR	Service Hydrologist, GS-12
Brian Kyle	WFO HGX	Promotion from HGX	Senior Forecaster, GS-13
Michael Berry	WFO SHV	Promotion from SHV	Senior Forecaster, GS-13